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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,337	11/18/2003	John McMillan	1015.1001	7593

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EXAMINER	
HOANG, PHUONG N	
ART UNIT	**PAPER NUMBER**
2194	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,337	MCMILLAN ET AL.	
	Examiner	Art Unit	
	Phuong N. Hoang	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 11 are pending for examination.

2. This office action is in response to application filed 11/18/03.

Specification

3. The use of the trademark (Windows®, 0017) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 2 contains the trademark/trade name Windows®. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe which version of operating system and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1 – 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. Claims 1 – 12 are directed to a computing architecture comprising operating system, file system, registry, software per se.

10. Claim 1 is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

11. Claims 2, 3, 5, and 6 are dependent claims of claim 1. They do not further produce any tangible results to support the deficiency of claim 1. They are rejected for the same reason above.

12. Claim 8 is the method claim of claim 1. It is rejected for the same reason as claim 1 above.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1 – 3, 5 – 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall et. al., "A Virtual Operating System" pages 495 – 502.

15. **As to claim 1**, Hall teaches a computing architecture, comprising:

a base operating system (OS) (single real operating system, page 495 col. 3, page 496 col. 2); and

at least one virtual OS environment (virtual operating systems, page 496 col. 2) within the base OS, the virtual OS environment having a file system (file systems, p. 497 col. 1 section 4) and registry (inherent for OS) and which is independent of the base OS.

16. **As to claim 2**, Hall teaches wherein the base OS is Windows.RTM or is Windows.RTM.-compatible (Unix operating system, p. 497 col. 3).

17. **As to claim 3,** Hall teaches at least one application (program, p. 496 col. 2 and 3) running under the virtual OS environment, and wherein the application shares one or more of the following with the base OS: networking information, user login rights, services, hardware information (hardware, p. 497 col. 1), and clipboard information.

18. **As to claim 5**, Hall teaches wherein each virtual OS environment contains a group of installed applications (p. 497 section 4) that run independently of each another.

19. **As to claim 6**, Hall teaches one or more applications (programs portable to virtual OS so the system offer in parallel, p. 497 section 4) running under the base OS and each virtual OS environment, and wherein all of the applications run on a single OS desktop.

20. **As to claim 8**, this is the method claim of claim 1. See rejection for claim 1 above.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. Claims 4, 7, 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et. al., "A Virtual Operating System" pages 495 – 502 in view of Krishma, US patent no. 6,141,698.

23. **As to claim 4**, Hall teaches multiple virtual OS (one single real OS can support many virtual operating systems, p. 496 col. 2) supports environments within a single operating system (OS).

Hall does not explicitly teach wherein a change made in one of the virtual OS environments does not affect the main OS or any other virtual OS environment. However, Hall teaches the virtual OS is independent from the real OS (p. 497 section 4).

Krishma teaches a change made in the OS (inject dll, abstract, figures 2, 3, and 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Hall and Krishma's system because Krishma's injecting dll to the virtual OS would change the execution, but no need to modify the code of the operating system, and since the virtual OS is independent from the real OS, the dll would only change the execution of the real operating system.

24. **As to claim 7**, see rejection for claim 4 above.

25. **As to claims 9 - 11**, Krishman teaches installing at least one application program under the virtual OS environment; and wherein attempts to access the base OS file

system and registry locations are instead redirected to the virtual OS environment file system or registry (inject dll, abstract, figures 2, 3, and 6).

Conclusion

26. The prior art made of record but not relied upon request is considered to be pertinent to applicant's disclosure.

Gaines, US patent no. 5,961,582, demonstrating a virtual host operating system.

Devine et al., US patent no. 6,397,242, demonstrating a virtualization system including a virtual machine monitor for a computer with a segment archictecture.

Armas et al., US patent no. 6,611,878, demonstrating a method for software technology injection for operating systems which assign separate process address spaces.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph
March 28, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER